



## CITY OF LODI COUNCIL COMMUNICATION

**AGENDA TITLE:** Adopt Resolution Authorizing City Manager to Execute Task Order No. 3 with RMC Water and Environment, of Walnut Creek, for Water Meter Planning, Design, and Program Management for Nonresidential and Multi-Family Parcels (\$596,936) and Appropriating Funds (\$650,000)

**MEETING DATE:** June 15, 2011

**PREPARED BY:** Public Works Director

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**RECOMMENDED ACTION:** Adopt resolution authorizing City Manager to execute Task Order No. 3 with RMC Water and Environment, of Walnut Creek, for water meter planning, design and program management for nonresidential and multi-family parcels in the amount of \$596,936 and appropriating funds in the amount of \$650,000.

**BACKGROUND INFORMATION:** On October 7, 2009, City Council approved a professional services agreement with RMC Water and Environment (RMC) for the planning and design of residential water meter installations at approximately 16,000 locations across the City. On November 11, 2010, Council approved an amended professional services agreement with RMC to address changes in the project scope and duration. This residential portion of the water meter program (parcels with one, two, three or four units) is currently under construction for Phase 1 (approximately 3,900 meters) and is in design for Phases 2 through 4. There are seven construction phases that are expected to be completed by the end of 2017. The residential portion of the water meter program will be completed January 2019 when usage-based water bills are sent to the final construction phase parcels.

Assembly Bill 2572, passed by the California Legislature in 2004, requires that all of Lodi's water customers receive a usage-based bill by January 2026. Task Order No. 3 addresses the next phase of the water meter program by covering parcels in the classes of mobile home parks, multi-family residential (parcels with five or more units), condominiums, commercial, industrial, and public/pseudo public. Some examples of these parcel types include multi-unit condominiums, apartments, shopping centers, convenience stores, hospitals, city offices, parks, and street landscape areas. A copy of the Task Order No. 3 scope of work and fee estimate is provided in Exhibit A.

There are approximately 3,200 parcels in these classes and approximately 900 parcels have existing meters, a majority of which are very old. As part of this next phase, the age and size of the existing meters will be assessed to determine where replacement and/or re-sizing are appropriate. Old meters and under-sized meters typically fail to record all usage, resulting in lost revenue to the utility. All existing meters, replaced or not, will be retrofitted with new registers and new transmitters (ERTs) to be compatible with the remote reading afforded by the new fixed network.

Construction phasing for the installation of water meters to these classes will follow the order listed below. The construction solely consists of adding meter assemblies where none exist and modifying

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APPROVED: \_\_\_\_\_

Konradt Bartlam, City Manager

existing meter assemblies to change out meters or add registers/ERTs. There is no pipeline construction associated with this phase of the water meter program.

- A. Mobile home parks
- B. Condominiums and Apartments
- C. Commercial and Industrial
- D. Public/pseudo public

There are several important aspects of Task Order No. 3 that are described below for the Council's information. One, the design services of this phase of the Water Meter Program do not include the specific sizing and locating of meter services to multi-family parcels (5 residential units and larger) for the reasons presented below:

- Condominiums: There are a number of two-unit-per-parcel condominium developments for which it is uncertain whether one or two meters will be installed per parcel. Also, for larger condominium developments it is unknown whether individual units have the correct plumbing configurations to support the installation of a metered water service to each condominium unit. Also, there may be multiple water services dedicated to irrigation of the public areas within condominium developments. The number of meter installations required to be installed in condominium developments will be determined during the field reconnaissance phase and this will set the design and construction requirement for converting condominium developments to a usage-based water utility billing.
- Apartments: A single master meter will be installed at most apartment developments. Some apartment developments have multiple services to multiple clusters of apartment units. The number of meter installations required to be installed will be determined during field reconnaissance and this will set the design and construction requirements.
- The installation of meters at condominium and apartment developments will be installed as a common phase of construction due to the similarity of issues and concerns expressed by the property owners, homeowners associations, and property management companies. This will improve efficiency and lower the costs of the public outreach efforts, property owner notifications, and construction.

Two, the design services of this phase do not include the specific sizing and locating of meter services to the class of properties identified as public/pseudo public. Examples of these properties include government building, schools, churches, and public landscape areas. Again, the number of meter installations required will be determined during the field reconnaissance phase and will set the design and construction requirements for metering these properties.

Finally, the field reconnaissance effort will largely be conducted using the field interns that conducted the residential meter field reconnaissance work. At the same time, these field interns will be observing the installation of meters during the Water Meter Program Phase 1 construction. This is a change in our planning in that the construction field representatives for Phase 1 had been approved by Council for hiring as City employees. This change improves the efficiency of our field interns, provides for direct supervision by RMC, and allows the assignment of the field interns to work on Phase 1 or the Task Order No. 3 field reconnaissance as required.

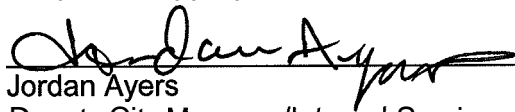
The key elements of Task Order No. 3 are described below. The entire scope of services is provided in Exhibit A.

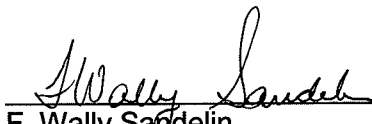
- Task 1 Collect data regarding existing meter records and create an electronic record of this information for inclusion in the Customer Information System data base. (\$25,085)
- Task 2 Assist in the development of policies related to billing these customer classes, master metering, customer meter installation charges, and exceptions. (\$6,685)
- Task 3 Perform field reconnaissance to confirm existing meter information and to assess conditions at new meter installation sites. Perform field observations of contractor's construction activity for the Phase I construction project. (\$270,330)
- Task 4 Segregate the parcels into the four construction phases mentioned above. Complete preliminary designs for each phase (except high density residential and public/pseudo public) including analysis to establish proper meter size, determine meter location, identify special construction requirements, prepare construction cost estimates, and set construction phasing. (\$64,684)
- Task 5 Provide support to City staff for separate public outreach efforts to each of the four phases. This will include preparation of meeting agendas, meeting materials, and focused information mailers. (\$22,728)
- Task 6 Prepare four sets of design packages including plans and specifications. (\$129,425)
- Task 7 Provide bidding support services to City staff. (\$17,272)
- Task 8 Provide program management services as related to this phase of the water meter program. (\$60,727)

The total estimated fee for Task Order No. 3 is \$596,936 and an appropriation in the amount of \$650,000 is requested to cover staff costs and contingencies.

**FISCAL IMPACT:** The cost of this task order is included in the Water Utility Financial Model.

**FUNDING AVAILABLE:** Requested appropriation of \$650,000 is from the Water Capital Fund (181)

  
Jordan Ayers  
Deputy City Manager/Internal Services Director

  
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FWS/pmf

Attachment

**Scope of Work for City of Lodi Water Meter Program**

**Task Order No. 3: WMP Expansion for Nonresidential and Multi-family Parcels**

The City of Lodi (City) is implementing a Water Meter Program (WMP) that will allow all current and future water service accounts to be converted from a flat rate, unmetered use basis to a metered use and billing basis. The City has requested RMC Water and Environment (RMC) to assist the City in planning, designing, and implementing the WMP. Work already completed as part of the WMP has primarily focused on low density residential (less than 5 residential units per parcel) accounts. It is the intent of this scope of work to expand the WMP to include mobile home parks, high density residential (at least 5 residential units per parcel), commercial and industrial, and public/pseudo-public parcels. The expanded WMP would encompass multi-unit condominiums, apartment complexes, mobile home parks, shopping centers, convenience stores, hospitals, city offices, and parks.

The following table summarizes the programs that will install or have installed meters within the City. The total number of accounted parcels for these different programs is comparable to the 19,110 parcels included in the February 2011 county APN database provided by the City, assuming some duplication between Phases 1-7 and this Task Order, which will be resolved as part of this work, and more than one meter purchased per parcel for some parcels in Phases 1-7 of the WMP. As part of this Task Order, RMC will be confirming the count of the meters to be installed based on the scoped design documents.

<b>Program</b>	<b>Number of Parcels Included</b>
City Project #3	257 *
Prepaid properties	950 *
Metered Bill (January 2011)	2,874
Phases 1-7 of WMP	12,564 **
Remainder under Task Order No. 3	3,168 ***
<b>Total</b>	<b>19,813</b>

(\*) Number of meters installed but not billed.

(\*\*) Number of meters expected to be procured through National Meter for WMP Phases 1 through 7.

(\*\*\*) Assumed number of parcels to be included in this scope of work. Estimated based on February 2011 county APN database provided by the City.

The tasks below describe the work to be completed assuming up to four separate design packages, one each for mobile home parks, high density residential, commercial/industrial, and public/pseudo-public parcels.

**Task 1: Collect Existing Data**

**Purpose:** Consolidate available information that will impact the water meter program for properties in this phase of the WMP to act as basis for other analysis and work

**Scope Items:**

*Subtask 1.1 – Collect Existing Data.* RMC will identify information necessary for execution of this scope of work. Information may include: water distribution system drawings, existing water meter tables,

aerial photography and mapping, MapGuide data, electric meter read routes/schedule, parcel maps, property classification, and a table of parcels to be provided by the Information Systems Division (ISD) that will be the basis of the list of properties to be included in this scope of work. RMC may have collected some of this information through previous work. RMC will develop a data request list for the remaining information. City will provide requested information.

*Subtask 1.2 – Digitize Hard Copy Meter Records.* It is RMC's understanding that a significant amount of the City's meter records are only available in hard copy format. RMC will collect available information from the City and transfer from hard copy records to an editable electronic file format the following information for use in comparing to ISD databases and field observation:

- APN of water service for which meter was installed
- Meter number

The table will be expanded by associating the meter number information with the meter number in the ISD table provided on April 14, 2011 that includes a meter size and the rate schedule for each meter and a table of water use records from meter readings to be provided at a later date. The water use records will be used to assess actual water use at property types and for sizing of replacement meters, where necessary.

*Subtask 1.3 – Compile Existing Data.* RMC will analyze available, existing data to develop an understanding of conditions (e.g. parcel and structure orientation; water main location; service line location; number of parcels per service line; number of units per parcel) at the properties to be included in the work. RMC will develop diagrams displaying available information about the properties for use in the field. RMC will identify property diagrams that would benefit from additional City staff review and input. The City will review these figures and update and annotate them to convey the location of service lines and other pertinent features such as existing meters and known obstacles. This additional information to be provided by the City is critical to an efficient field reconnaissance effort.

**Assumptions:**

- Tabular information except as noted above is available from the City in Excel or Access format.
- There are assumed to be 4000 meter records available only in hard copy format.
- Transfer of meter information beyond what is identified in the scope language will not be required for this work because it is assumed that all existing meters that would be impacted by this scope of work will be replaced.
- All installed meters are being read and billed and are included in the ISD databases. The table provided by ISD on April 14, 2011 is the limit of what would be evaluated as part of this scope of work.
- Total count of parcels on the APN list to be provided by ISD is within 50 parcels of the information provided in February 2011.
- City parcel maps are in GIS format and will be the basis of the property diagrams. Each parcel will have a unique Assessor's Parcel Number (APN) associated with the file feature. City may elect to provide a parcel GIS file developed by the County should the City wish that file to be the basis of the property diagrams.
- Discrepancies between the County parcel database and the City parcel maps will be researched and resolved by ISD. An updated parcel map will be made available for use on the Project.

- One meeting with City staff is assumed to be a part of this task. Budget and deliverables for the meetings are included in Task 8.

**Deliverables:**

- 1) Data request list
- 2) Data source log
- 3) Meter information table
- 4) List of properties to be included in design packages with preliminary design package classification and metered status (including existing meter size)
- 5) Property diagrams
- 6) Meeting agendas and summaries

**Task 2: Policy Development**

**Purpose:** Develop and evaluate potential policies for meter implementation under this Task Order including construction, maintenance, and billing for multiple structure/parcel/property configurations.

**Scope Items:**

*Subtask 2.1 – Survey of Other Utilities’ Policies.* RMC will research metering and billing approaches of other local cities and water agencies, including Galt, Sacramento Suburban Water District, Vacaville, Ripon, Woodland, Fresno, Stockton, and Sacramento. RMC will question utilities on policies for metering, meter sizing, charges and billing, exceptions, and process taken to arrive at the final policies and charges.

*Subtask 2.2 – Policy Development.* RMC will work with City to develop metering policies and evaluate master metering as the primary policy alternative for the City. RMC will develop criteria that will help the City apply the policy and identify exceptions. Using the results of the research and input from City staff, RMC will evaluate and provide a recommendation for a fair charge for meter service and provide up to three alternatives for recovery of the installation cost.

This scope assumes development, application, and implementation of a master metering policy. Master metering assumes that there would be one meter per underlying parcel, whether that parcel be, for example, for a single unit, a condominium complex, or a mobile home park.

**Assumptions:**

- This scope of work and associated fee estimate and schedule assumes that there will be only 1 meter per underlying parcel. Master metering is assumed to be the preferred policy of the City based on prior WMP research efforts and feedback from City staff. It is acknowledged that there will be exceptions to this policy but not enough information is available at this time to quantify the number, type, or location of the exceptions to the master metering policy. The City and RMC will revisit this scope of work, fee estimate, and schedule after development of the policies and criteria as a part of this task and the field reconnaissance in Task 3 to account for exceptions to the master metering policy.
- This work will build upon information collected as part of prior WMP efforts.

- RMC will coordinate policy development with City staff. Incorporating input from residents and land owners is not part of this task.
- One meeting with City staff is assumed to be part of this task. The purpose of this meeting is to inform City staff and prepare them for an upcoming ExComm meeting, at which decisions on the policies will be made. Participation in the ExComm meeting is covered as part of RMC's existing contract. Budget and deliverables for the staff preparation meeting is included in Task 8.

**Deliverables:**

- 1) Memorandum summarizing results of the analysis and recommendations

**Task 3: Field Reconnaissance**

**Purpose:** This task provides for intern resources and management in performing field reconnaissance for the Nonresidential and Multi-family Parcels Meter Program and intern resources (management is included in previously authorized RMC tasks) meter installation observations for the WMP Phase 1 construction.

**Scope Items:**

*Subtask 3.1 – Construction Management Services.* Field interns, hired under Task Order No. 2, will be used to supplement City Staff construction management efforts for installation of meters associated with Phase 1 of the WMP. The Field Interns will observe the Contractor's daily construction activities associated with installing approximately 3,700 water meter assemblies. The Field Intern's responsibilities will consist of, but are not limited to, observing and reporting on the contractor's process, materials used, and compliance with the contract documents to install the meter assemblies, meter boxes, and the abandonment of old water services. They will record and report daily on the contractor's progress by preparing daily reports and updating a meter install tracking database. The Field Interns may assist the Resident Engineer in other tasks.

*Subtask 3.2 – Field Work Preparation.* RMC will conduct a field reconnaissance effort for the 3,168 parcels. It is assumed that RMC will utilize the construction observation interns from Subtask 3.1 above for the field reconnaissance work when they are not otherwise occupied with construction observation activities. RMC will train the interns to perform the field observation work necessary for the Nonresidential and Multi-family Parcels Meter Program expansion. RMC will develop a field database and form based on the summer 2010 field work. RMC will preload the tabular meter information developed in Subtask 1.2 into the field database for comparison with field observations.

*Subtask 3.3 – Site Investigations.* RMC will coordinate and conduct field reconnaissance visits to assess existing conditions for the parcels being investigated under the Nonresidential and Multi-family Parcels Meter Program expansion (i.e. utilities, physical features, obstacles) that could be encountered during construction. These observations will provide the basis for developing the existing conditions database.

For existing metered parcels, RMC will accompany City meter readers on their regular routes to help identify locations of meters as well as document existing meter equipment and related facilities. This will be achieved by locating the meter using a GPS device and photographing the meter and its surroundings. Since it is assumed that all existing meters will be replaced, it is assumed that no additional field work would be required for existing meter installations.

For unmetered parcels, RMC will visit each underlying parcel to verify the location of the existing water service line and to document conditions, comparable to the effort undertaken in the summer of 2010 field reconnaissance work. This level of field reconnaissance is assumed to be adequate for design and installation of a single master meter for the underlying parcel. Field work associated with designs related to exceptions to this policy is not covered by the level of effort included in the budget estimate.

RMC will update the property diagrams developed in Task 1 based on field reconnaissance observations. Vacant properties will be identified and excluded from further analysis and design.

**Assumptions:**

- Scope and budget for construction management services included in this Task Order apply only to interns. Non-intern RMC and Nolte staff scope and budget are included in other authorized RMC task orders.
- Intern efforts associated with Task 3.1 (Construction Management Services) are assumed to take place between June 2011 and October 2011.
- City staff will be available to review the proposed field form and participate in preliminary field visits to help identify potential opportunities and constraints.
- There are assumed to be 2,277 parcels without meters.
- There are assumed to be 891 parcels with meters.
- All existing meters locations will be visited within one billing cycle of meter reads, assumed to be one month in duration.
- Two RMC teams will perform the field reconnaissance work. One engineer will oversee day-to-day operations and manage the work flow and database entry.
- City will provide field office space with phone and internet access at no charge to RMC.
- No right of entry or other permits will be required to perform the field work. City will perform any required notification.
- Equipment used for the summer 2010 field work will be available for use on this scope.
- Two meetings with City staff are assumed to be part of this task. Budget and deliverables for the meetings are included in Task 8.

**Deliverables:**

- 1) Field database for Nonresidential and Multi-family Parcel Meter Program expansion
- 2) Field reconnaissance summary memorandum
- 3) Updated property diagrams

**Task 4: Nonresidential and Multi-family Parcel Planning**

**Purpose:** Identify properties to be included in design phase of the work; develop meter sizing and installation guidelines to facilitate design; identify appurtenances and facilities related to water meters that will be included in the standard meter installation designs; develop basis for final design and final design work products. The basis for planning work will be the metering policies previously developed by RMC and the City and the supplemental policies developed under Task 2 herein.

**Scope Items:** Design packages in this expansion of the WMP will address properties that are currently metered that are assumed to require replacement meters and properties without meters. This task also



includes work to develop information and a technical memorandum that will serve as the preliminary design for the Nonresidential and Multi-family Parcels expansion to the WMP. The subtasks below describe the planning and preliminary design work.

*Subtask 4.1 – Unmetered Properties.* Unmetered properties not included in WMP Phases 1 through 7 will be included in this subtask. RMC will review parcel records, installed meter databases, and the field database to confirm the properties belonging within this subtask.

RMC will research and recommend meter assembly components (e.g. meters, valves, back-flow preventers, fire flow bypass) and metering technologies. Recommended metering technologies will be compatible with City plans for a fixed network automated meter reading capability. RMC will develop installation cost estimates for the range of meter assembly sizes. RMC, in consultation with City staff, will also recommend capacity ranges for each meter assembly size and identify an approximate number of parcels that would likely be fitted with each meter size. To perform this work RMC will:

- Develop a fixture unit count estimate, using the 2010 California Plumbing Code, as a basis for up to 5 building unit types:
  - Mobile home
  - Apartment/Condo unit
  - Light Water Use Commercial/Industrial (assumed to include public/pseudo-public properties)
  - Heavy Water Use Commercial/Industrial
  - Irrigation

These fixture counts will be multiplied by the number of building units to obtain the total number of fixture units for each property included under this scope. Landscaped area will be provided by the City to facilitate calculation of irrigation fixture units. Based on the 2010 California Plumbing Code, this number of fixture units will be translated into a design minimum and peak water demand. Where it is unclear how many building units are represented on a parcel, a demand range will be established.

- Utilize AWWA Manual 22 to size meters based on the design demand. Where more than one meter size is able to accommodate the maximum demand load, the meter size with the smallest minimum test flow will be recommended.
- Meter sizing recommendations will be confirmed by City staff before additional analysis is performed.
- Meter standards will be referenced as follows:
  - AWWA C700 – Cold-Water Meters – Displacement Type, Bronze Main Case
  - AWWA C701 – Cold-Water Meters – Turbine Type
  - AWWA C702 – Cold-Water Meters – Compound Type

RMC will make a recommendation for meter style based on the application and anticipated demand. City staff will confirm the recommendation or suggest an alternate, preferred style.

- Identify up to 3 meter vendors/manufacturers able to supply meters consistent with the needs of the the expanded WMP.
- Develop performance and material requirements for additional equipment to be installed with the meters.

- Confirm with City staff and manufacturers that the automated meter reading technology being implemented in WMP Phases 1 through 7 is appropriate for use in the expanded WMP.
- Develop a recommended concept for a standard master meter installation

The concept will include recommended meter, register, ERT, valving, fire protection flow bypass (unmetered), and backflow preventer assembly. Concept sketches will be the basis of the design details to be developed during final design.

- Develop a preliminary design level cost estimate for the various sizes of meter assemblies based on manufacturer quotes, published unit cost information (i.e. RS Means and Saylor), and RMC experience. The estimates will be applied to the parcels included in this Task Order to develop an estimate for implementation of WMP for the multi-unit residential and nonresidential parcels.

RMC will apply the metering policies and criteria developed in Task 2.

*Subtask 4.2 – Metered Properties.* RMC will review the City's installed meter database and field reconnaissance database to update the metered parcel list.

RMC will establish meter installation recommendations consistent with those of unmetered properties based on parcel type, the number of units, and meter read history. RMC will also review billing arrangements for existing metered customers to ensure consistency with the policies and recommendations developed in Task 2 or to identify existing programs that would need to be grandfathered into the updated policies.

*Subtask 4.3 – Preliminary Design.* Preliminary design work will consist of:

***Confirm Bid Packages and Phasing***

Up to four design packages are assumed included within this scope, one each for mobile home parks, high density residential (5 or more residential units, including condominiums, apartments, and planned unit developments), commercial/industrial, and public/pseudo-public parcels. RMC will analyze the contracting approach to confirm this assumption and make a recommendation for contracting of the expanded WMP considering composition of the packages, City cash flow within the water utility, and possible synergies with the current WMP Phase 1 through 7 contracting approach.

***Develop Design Criteria and Standards***

RMC shall develop criteria, assumptions and standards for design of each package based on previous design work performed by RMC. Criteria will include preferred construction techniques (minimally invasive for meter installation), meter and electronic meter reading equipment standards, surface restoration, and traffic control, as appropriate.

***Develop Concept for Preliminary Contract Documents and Bid Schedule***

RMC shall develop a conceptual drawing, specifications and bid schedule for up to four contract document packages based on contract document packages for WMP Phases 1 and 2. The bid schedule will define the structure by which the project is bid by contractors, as well as the basis for payment during construction. It will also isolate those meter installation costs for which the property owner may be responsible. The preliminary bid schedule will be refined based on discussions with the City.

It is anticipated that each design package would be similar to the one produced for the Phase 1 parcels and contain:

- An overall index sheet with a grid reference system to area detail sheets.
- Area detail sheets (approximately 1"=40') with parcel lines, APNs, approximate water main locations, and background aerial photography obtained previously by RMC for the WMP Phases 1 through 7. Existing meter locations and proposed meter locations would be symbolized on the area detail sheets.
- Installation details for the standard master meter policy installation and common exceptions to the master meter policy such as a master meter + master irrigation meter.

Differences from the Phase 1 construction drawings would include:

- Reference to a table that includes each parcel to be included in the bid package that contains information such as applicable meter assembly, reference to other applicable details, and field reconnaissance information that may be useful for bidding and construction.

#### ***Develop Preliminary Construction Costs***

RMC shall develop a preliminary construction cost estimate for the expanded WMP, including new and replacement meter installations. The preliminary construction cost estimate shall be appropriate in detail and accuracy for a planning level effort (+/- 30%). Contingencies will be applied to account for unforeseen conditions and project unknowns. The cost estimate will be developed to correspond to the approved project phasing; the net present value (NPV) of each phase will be developed and the cost estimate for each phase will be projected to the assumed mid-point of construction. This level of estimate will be consistent with the WMP Phases 1 through 7 methodology for updating overall WMP outlays.

*Subtask 4.4 – Preliminary Design TM.* RMC shall prepare a Preliminary Design Technical Memorandum (TM) summarizing the work under this task for parcels classified as mobile home park, high density residential (at least 5 units per parcel), commercial and industrial parcels, and public/pseudo-public parcels. A single TM will address up to four design packages. Since much of the information to be developed is anticipated to be similar or the same for all four individual design packages, a single Preliminary Design TM will reduce overall effort that would be needed to produce four TMs. RMC will identify differences in design package content between the up to four separate design packages. For all work components, any differences in submittal content between the four design packages will be identified.

#### **Assumptions:**

- This scope of work and associated fee estimate and schedule assumes that there will be only 1 meter per underlying parcel. Master metering is assumed to be the preferred policy of the City based on prior WMP research efforts and feedback from City staff. It is acknowledged that there will be exceptions to this policy but not enough information is available at this time to quantify the number, type, or location of the exceptions to the master metering policy. The City and RMC will revisit this scope of work, fee estimate, and schedule after development of the policies and criteria in Task 2 and the field reconnaissance in Task 3 to account for exceptions to the master metering policy.
- RMC shall prepare bid package Building Division files will have sufficient information to develop a fixture unit count for the building types. Where there is insufficient information available from

the Building Division files, RMC may develop an estimated meter size based on water line size where water line size is available.

- There are assumed to be 2,277 parcels without meters.
- There are assumed to be 891 parcels with meters.
- City will provide documentation of all existing billing arrangements and agreements.
- Analysis will be portrayed in tabular format only.
- Two meetings with City staff are assumed to be part of this task. Budget and deliverables for the meetings are included in Task 8.
- The City will participate in a workshop to discuss results of the draft Preliminary Design TM and will provide written comments for RMC to address and incorporate into the final Preliminary Design TM.
- Site specific detail presented as part of the Preliminary Design TM will be general and illustrative in nature.
- Analysis (e.g. sizing or condition assessment) and design of replacement service lines and water mains are not included in this scope of work.
- City will define cost items for which an individual property owner may be responsible for use in developing a conceptual bid schedule.

**Deliverables:**

- 1) Draft and final Preliminary Design TM (PDF and 3 hard copies)

**Task 5: Focused Outreach – Meeting Support**

**Purpose:** Support City efforts to communicate planned strategies and policies to affected communities.

**Scope Items:** RMC will participate in up to four focus group meetings. Each focus group meeting will align with each of the up to four design packages. City staff will lead the meetings and identify topics to be addressed in each meeting. RMC will develop meeting materials and information (e.g. handouts, graphics, and presentation slide shows).

RMC will support the City at up to four City Council shirtsleeve meetings, one shirtsleeve meeting per design package. One RMC staff person will attend and participate in the shirtsleeve meetings.

**Assumptions:**

- City staff will be responsible for preparing invitations and notifications for the focus group meetings.
- Nine meetings (four focus group meetings, four shirtsleeve meetings, and a planning session with City staff) are assumed to be part of this task. Budget and deliverables are included in this task.

**Deliverables:**

- 1) Meeting materials for all meetings identified above
- 2) Meeting summary for the focus group meetings

## **Task 6: Final Design**

**Purpose:** Develop up to four biddable and buildable design packages, including drawings and specifications, for mobile home parks, high density residential properties, commercial/industrial properties, and public/pseudo-public properties.

**Scope Items:** RMC shall develop drawings (plan view for meters and services) for each design package. The final designs will ultimately result in a comprehensive set of bid documents for each design package that the City of Lodi can publicly bid. All packages will be designed and bid consecutively (not concurrently). The mobile home park design package will be completed first. The order of the other design packages will be determined through Task 4 work. Each design package shall include 60% and 90% complete interim submittals and a final signed and sealed bid package deliverable, as defined below. Each submittal shall represent a logical progression of the design package development and shall incorporate City review comments. This task includes the following work for each design package:

### ***60% Design***

RMC shall perform engineering and design activities to develop a 60% level of completion package for the project. The submittal shall include the following components:

- Location and type of meter for new meter installations or replacement of existing meters
- Preliminary construction details, including meter installation, connections, trenching, and roadway restoration.
- Draft front end and technical specifications for major materials and equipment and a proposed table of contents for the final bid package submittal.
- Engineer's estimate of construction costs, projected to mid-point of construction.
- Design submittal memorandum summarizing contents of the submittal package and outstanding items for review and resolution.

### ***90% Design***

RMC shall perform engineering and design activities to develop a 90% level of completion package for the project. The 90% Design Package submittal shall incorporate City comments received during review of the 60% Design Package submittal. The 90% submittal shall include the following components:

- Meter installation plans, construction details, and construction notes showing the location and type of meter installation, as needed.
- Construction details including meter installation, connections, trenching and roadway restoration.
- Technical specifications.
- Engineer's estimate of construction costs.
- Design submittal memorandum summarizing contents of the submittal package, outstanding items for review and resolution.

### ***Bid Submittal***

RMC shall finalize the drawings and specifications based on the 90% design submittal review comments from the City. The Bid Submittal, the final design submittal, shall be signed and stamped by the responsible RMC professional engineer. The final design submittal shall include the following components:

- Final drawings and specifications
- Final Engineer's Estimate

### **Assumptions:**

- This scope of work and associated fee estimate and schedule assumes that there will be only 1 meter per underlying parcel. Master metering is assumed to be the preferred policy of the City based on prior WMP research efforts and feedback from City staff. It is acknowledged that there will be exceptions to this policy but not enough information is available at this time to quantify the number, type, or location of the exceptions to the master metering policy. The City and RMC will revisit this scope of work, fee estimate, and schedule after development of the policies and criteria in Task 2 and the field reconnaissance in Task 3 to account for exceptions to the master metering policy.
- Design for the high density residential and public/pseudo-public bid packages cannot be estimated until the completion of field reconnaissance and [re-evaluation of the level of effort impacts of exceptions to the master metering policy](#). Design of these bid packages is not included in the scope or fee estimate at this time. Scope language that references these design packages demonstrates RMC's and the City's intent to develop a fee estimate for this work and complete the design packages.
- RMC shall prepare bid package documents using several formats that may include AutoCAD, ArcGIS, Microsoft Excel, Microsoft Access, and Microsoft Word. A consistent title block acceptable to the City for the different formats will be used. The title block will be based on the City's standard title block and CAD standards. Drawings to be developed in AutoCAD will be in AutoCAD 2008 unless City provides a preferred version prior to Preliminary Design (Subtask 4.3)
- Specifications shall be 16 Division CSI format, prepared in MS Word. RMC shall use the City's front end specifications (Division 0 and 1) edited to make them project specific.
- Specifications will rely heavily on the WMP Phase 1 specifications and the City Standard Construction Specifications that are currently under development by RMC.
- Plans will rely heavily on the WMP Phase 1 plans for format, referencing systems, and content where applicable.
- Drawings are anticipated to consist of general sheets, large-scale index sheets, area detail sheets, look-up tables, and details. The area detail sheets (approximately 1"=40' scale for consistency with the Phase 1 construction package) include parcel specific references to look-up tables. The look-up tables will reference applicable construction details for the property, including meter assembly, meter size, and field reconnaissance notes. The look-up tables may be included in the plan set or bound with the specifications.
- Exact locations of service lines are not required for the contractor to bid or construct the meter installation.
- City parcel map (GIS format) will be the basis of the design and background for the index sheets.
- No water main or water service line replacement is included in this task.

- Similar to the Phase 1 construction documents, RMC shall organize and configure the submittal CD-Rom for easy navigation by bidders. Drawing and specification files will be titled for easy identification.
- Backgrounds and drawing scale will be appropriate for the intended use.
- Eight meetings are assumed to be part of this task for review of the 60% submittal and the 90% submittal for each of the four design packages. Budget and deliverables for the meetings are included in Task 8.

**Deliverables:**

- 60% Design Submittal Packages
  - Five (5) hard copy sets of 11x17 drawings and 8-1/2 x 11 specifications
  - One (1) CD-Rom containing pdf format files of the drawings, specifications, and supporting documentation)
- 90% Design Submittal Packages
  - Five (5) hard copy sets of 11x17 drawings and 8-1/2 x 11 specifications
  - One (1) CD-Rom containing pdf format files of the drawings, specifications, and supporting documentation)
- Final Design Submittal Package
  - One (1) full-size, camera ready, unbound mylar set of drawings
  - Five (5) hard copy sets of 11x17 drawings and 8-1/2 x 11 specifications
  - One (1) CD-Rom containing pdf format files of the drawings, specifications, and supporting documentation

**Task 7: Bidding Services**

**Purpose:** City of Lodi, at its discretion, may utilize the RMC's services during the Bid Period activities. RMC shall support and facilitate the City's effort to bid and award the meter installation contracts.

**Scope Items:** RMC shall assist the City in administering bid-phase activities for up to four bid packages including:

- Coordinate with City's printing vendor to produce bid sets for contractor distribution. Consultant shall deliver a .pdf file to vendor.
- Maintain plan holders list
- Respond to bidder questions
- Prepare and distribute addenda to plan holders, as required
- Administer pre-bid meeting (1 per design package)
- Evaluate bids for completeness

**Assumptions:**

- The City shall be the main point of contact for bid inquiries.
- City shall provide data and/or input as appropriate to address bidder questions.
- City shall appoint a City staff person who shall be responsible for administering the bid period and shall be RMC's main point of contact.
- The vendor will handle distribution and charge bidders by the set. There will be no costs to RMC associated with bid set reproduction or distribution.

- Four meetings are assumed to be part of this task. Budget and deliverables for the meetings are included in Task 8.
- Construction support services and construction management services are not included in this Scope.

**Deliverables:**

- Bid documents (full size PDF, half size PDF, up to 5 hard copy half-size sets for client use)
- Plan holders list
- Bidder inquiry and response log
- Up to two addenda per bid package, as needed
- Bid evaluation forms and recommendations

**Task 8: Project Management**

**Purpose:** Manage RMC's team to achieve the project goals and deliver the project deliverables within the budget and schedule allocated to the work. Communicate with the City throughout the process.

**Scope Items:**

It is RMC's intent to manage the work under this Scope of Services in coordination with project management activities currently ongoing to streamline reporting and to avoid duplication of effort. The activities described in the subtasks below will be consolidated with similar project management activities performed for other Task Orders where possible to minimize overall cost. The level of effort associated with this work is the incremental effort required to include these subtasks with similar subtasks in other Task Orders.

*Subtask 8.1 – Budget and Schedule Tracking.* RMC will manage the budget and schedule consistent with City objectives. RMC is not responsible for delays beyond its control. RMC will communicate budget concerns to the City as necessary. RMC will prepare monthly invoices and progress reports.

*Subtask 8.2 – Progress Meetings.* RMC will participate in up to eight progress meetings/conference calls with City staff.

*Subtask 8.3 – Task Meetings.* RMC will participate in the meetings identified in other tasks described above. Up to 18 meetings are included, as described in the table below.

Task	Number of Assumed Meetings	RMC Attendees	Meeting Description
1	1	Task order manager	<ul style="list-style-type: none"><li>• Review data request and collect hard copy information</li></ul>
2	1	Project manager	<ul style="list-style-type: none"><li>• ExComm meeting preparation regarding proposed policies and criteria</li></ul>
3	2	Field manager and engineer	<ul style="list-style-type: none"><li>• Field meetings to review field reconnaissance procedures and obstacles</li></ul>
4	2	Task order manager and engineer	<ul style="list-style-type: none"><li>• Review recommended meter arrangements, costs, etc.</li></ul>



City of Lodi  
Water Meter Program Task Order No. 3

Task	Number of Assumed Meetings	RMC Attendees	Meeting Description
			<ul style="list-style-type: none"><li>• Receive comments on draft Preliminary Design TM</li></ul>
6	8	Task order manager and engineer	<ul style="list-style-type: none"><li>• Receive comments on 60% design package (x4 bid packages)</li><li>• Receive comments on 90% design package (x4 bid packages)</li></ul>
7	4	Task order manager and engineer	<ul style="list-style-type: none"><li>• Pre-bid meeting (x4 bid packages)</li></ul>

*Subtask 8.4 – Perform QA/QC.* RMC will implement a QA/QC plan consistent with the QA/QC plan developed as a part of Task Order 1. RMC will perform and document internal QC reviews of deliverables.

**Assumptions:**

- RMC will continue participation in executive committee meetings as described and budgeted in Task Order 1. No additional meeting attendance is included in this scope for ExComm meetings.
- Monthly invoices and progress reports will be prepared for this Task Order separate from other WMP task orders to facilitate billing and payment.
- Monthly progress meetings will coincide with other project meetings or take place via conference call.
- Duration of work under this task order is assumed to be 31 months
- Eight progress meetings are assumed

**Deliverables:**

- 1) Monthly invoices and progress reports
- 2) Task meeting agendas and summaries
- 3) Documentation of QC reviews

City of Lodi  
Water Meter Program Task Order No. 3

RMC WATER AND ENVIRONMENT

CITY OF LODI

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

Konradt Bartlam  
\_\_\_\_\_  
Printed Name

City Manager  
\_\_\_\_\_  
Title

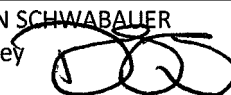
\_\_\_\_\_  
Date

ATTEST:

\_\_\_\_\_  
RANDI JOHL  
City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
D. STEPHEN SCHWABAUER  
City Attorney





## Fee Estimate

City of Lodi

### Water Meter Program - T03: Nonresidential and Multi-family Parcels

Tasks	RMC Labor		Mileage		ODCs		Total
	Total Hours	Total Labor Costs (1)	Total Hours	Subtotal	Sub Consultant Total Cost (2)	ODCs	Total Fee
<b>Task 1: Collect Existing Data</b>							
1.1 Collect Existing Data	15	\$2,755	0	\$0	\$0	\$100	\$2,855
1.2 Digitize Hard Copy Meter Records	70	\$7,500	0	\$0	\$0	\$0	\$7,500
1.3 Compile Existing Data	80	\$14,720	0	\$0	\$0	\$0	\$14,720
Subtotal Task 1:	165	\$24,975	0	\$0	\$0	\$100	\$25,085
<b>Task 2: Policy Development</b>							
2.1 Utility Research	11	\$1,855	0	\$0	\$0	\$0	\$1,855
2.2 Policy Development	20	\$4,830	0	\$0	\$0	\$0	\$4,830
Subtotal Task 2:	31	\$6,685	0	\$0	\$0	\$0	\$6,685
<b>Task 3: Field Reconnaissance</b>							
3.1 Construction Management Services	2000	\$82,500	0	\$0	\$0	\$0	\$82,500
3.2 Field Work Preparation	102	\$16,230	30	\$2,700	\$2,970	\$0	\$19,200
3.3 Site Investigations	2948	\$144,760	230	\$20,700	\$22,770	\$1,000	\$168,630
Subtotal Task 3:	5050	\$243,490	260	\$23,400	\$25,740	\$1,000	\$270,330
<b>Task 4: Planning</b>							
4.1 Properties With Meters	136	\$25,555	4	\$240	\$264	\$0	\$25,819
4.2 Properties With Meters	27	\$4,905	0	\$0	\$0	\$0	\$4,905
4.3 Preliminary Design	88	\$17,800	16	\$960	\$1,056	\$0	\$18,856
4.5 Preliminary Design TM	82	\$14,730	4	\$240	\$264	\$100	\$15,104
Subtotal Task 4:	333	\$62,990	24	\$1,440	\$1,584	\$100	\$64,684
<b>Task 5: Focused Outreach - Meeting Support</b>							
5.1 Meetings	120	\$22,260	0	\$0	\$0	\$425	\$22,728
Subtotal Task 5:	120	\$22,260	0	\$0	\$0	\$425	\$22,728
<b>Task 6: Final Design</b>							
6.1 Mobile Home Parks Bid Package	104	\$18,500	104	\$8,040	\$8,844	\$1,000	\$28,444
6.2 High Density Residential Bid Package (NOT ESTIMATED)	0	\$0	0	\$0	\$0	\$0	\$0
6.3 Commercial and Industrial Bid Package	316	\$59,940	440	\$35,760	\$39,336	\$1,550	\$100,981
6.4 Public/Pseudo-public Bid Package (NOT ESTIMATED AT)	0	\$0	0	\$0	\$0	\$0	\$0
Subtotal Task 6:	420	\$78,440	544	\$43,800	\$48,180	\$2,550	\$129,425
<b>Task 7: Bidding Services</b>							
7.1 Mobile Home Parks Bid Package	22	\$3,790	8	\$480	\$528	\$0	\$4,318
7.2 High Density Residential Bid Package	22	\$3,790	8	\$480	\$528	\$0	\$4,318
7.3 Commercial and Industrial Bid Package	22	\$3,790	8	\$480	\$528	\$0	\$4,318
7.4 Public/Pseudo-public Bid Package	22	\$3,790	8	\$480	\$528	\$0	\$4,318
Subtotal Task 7:	88	\$15,160	32	\$1,920	\$2,112	\$0	\$17,272
<b>Task 8: Project Management</b>							
8.1 Budget and Schedule Tracking	51	\$8,100	10	\$1,500	\$1,650	\$0	\$9,750
8.2 Progress Meetings	12	\$2,400	0	\$0	\$0	\$0	\$2,400
8.3 Task Meetings	240	\$43,595	18	\$1,620	\$1,782	\$1,100	\$46,587
8.4 QA/QC Deliverables	10	\$1,990	0	\$0	\$0	\$0	\$1,990
Subtotal Task 8:	313	\$56,085	28	\$3,120	\$3,432	\$1,100	\$60,727
<b>TOTAL</b>	<b>6520</b>	<b>\$510,085</b>	<b>888</b>	<b>\$73,680</b>	<b>\$81,048</b>	<b>\$5,275</b>	<b>\$596,936</b>
<b>Cost without Task 3.1</b>							<b>\$514,436</b>

1 The individual hourly rates include salary, overhead and profit

2 Subconsultants will be billed at actual cost plus 10%

3 Other direct costs (ODCs) such as reproduction, delivery, mileage (rates will be those allowed by current IRS guidelines), and travel expenses, will be billed at actual cost plus 10%

4 RMC and the City of Lodi will negotiate an adjustment for contract years 2011 through 2014 based on an established price index agreeable to both parties

1. AA# \_\_\_\_\_  
2. JV# \_\_\_\_\_

CITY OF LODI APPROPRIATION ADJUSTMENT REQUEST					
TO:	Internal Services Dept. - Budget Division				
3. FROM:	Rebecca Areida-Yadav			5. DATE:	06/06/2011
4. DEPARTMENT/DIVISION: Public Works					
6. REQUEST ADJUSTMENT OF APPROPRIATION AS LISTED BELOW					
	FUND #	BUS. UNIT #	ACCOUNT #	ACCOUNT TITLE	AMOUNT
A. SOURCE OF FINANCING	181		3205	Fund Balance	\$ 650,000.00
B. USE OF FINANCING	181	181463	1825.2200	Water Meter Planning/Design	\$ 650,000.00

7. REQUEST IS MADE TO FUND THE FOLLOWING PROJECT NOT INCLUDED IN THE CURRENT BUDGET	
<p>Please provide a description of the project, the total cost of the project, as well as justification for the requested adjustment. If you need more space, use an additional sheet and attach to this form</p> <p>Table for 3 year cost of Environment for table design and program material for nonresidential and multi-family parcels.</p>	
If Council has authorized the appropriation adjustment, complete the following:	
Meeting Date: _____ Res No: _____ Attach copy of resolution to this form.	
Department Head Signature: <u>Wally Sanchez</u>	

8. APPROVAL SIGNATURES	
Deputy City Manager/Internal Services Manager	Date

Submit completed form to the Budget Division with any required documentation.  
Final approval will be provided in electronic copy format.

RESOLUTION NO. 2011-91

A RESOLUTION OF THE LODI CITY COUNCIL  
AUTHORIZING THE CITY MANAGER TO EXECUTE TASK  
ORDER NO. 3 WITH RMC WATER AND ENVIRONMENT, OF  
WALNUT CREEK, FOR WATER METER PLANNING, DESIGN,  
AND PROGRAM MANAGEMENT FOR NONRESIDENTIAL  
AND MULTI-FAMILY PARCELS AND FURTHER  
APPROPRIATING FUNDS

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WHEREAS, on October 7, 2009, Council approved the professional services agreement with RMC Water and Environment (RMC) for the planning and design of residential water meter installations at approximately 16,000 locations; and

WHEREAS, on November 11, 2010, Council approved an amended professional services agreement with RMC to address changes in the project scope and duration; and

WHEREAS, Task Order No. 3 addresses the next phase of the water meter program for classes of mobile home parks, multi-family residential (parcels with five or more units), condominiums, commercial, industrial, and public/pseudo public.

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize the City Manager to execute Task Order No. 3 in the amount of \$596,936 with RMC Water and Environment, of Walnut Creek, California, for additional work related to the water meter planning, design, and program management for nonresidential and multi-family parcels; and

BE IT FURTHER RESOLVED that funds in the amount of \$650,000 be appropriated from the Water Capital Fund.

Dated: June 15, 2011

=====

I hereby certify that Resolution No. 2011-91 was passed and adopted by the City Council of the City of Lodi in a regular meeting held June 15, 2011, by the following vote:

AYES: COUNCIL MEMBERS - Hansen, Katzakian, Mounce, and Mayor Johnson

NOES: COUNCIL MEMBERS - Nakanishi

ABSENT: COUNCIL MEMBERS - None

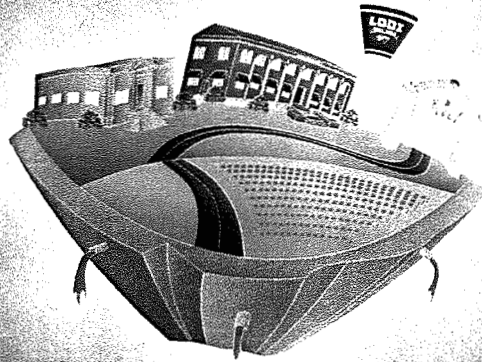
ABSTAIN: COUNCIL MEMBERS - None



RANDI JOHL

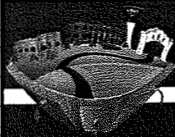
City Clerk

The City of Lodi  
**Public Works  
Engineering**




## Water Meter Program

Agenda Item C-8




### Background

- Assembly Bill 2572 Requires Meters by 2026
- 3,000 Meters Installed/Billed January 2011
- 3,900 Meters Being Installed – Phase 1
- 9,400 Remaining Residential Meters
- \$300 Per Meter Installation



### Scope of Services


- 3,200 New and Replacement Meters
- Mobile Home Parks
- Apartments and Condominiums
- Commercial and Industrial
- Public and Pseudo Public



### Contract History


• Task Order No. 1	\$2,800,051
• Amendment No. 1	\$2,057,417
• Task Order No. 2	\$ 198,433
• Task Order No. 3	\$ 596,936
Total	\$5,652,837





## Scope of Services

- Data Collection
- Assist In Policy Development
- Field Reconnaissance
- Planning and Preliminary Design
- Preliminary Construction Cost Estimates
- Assist In Public Outreach
- Final Design



## Justification

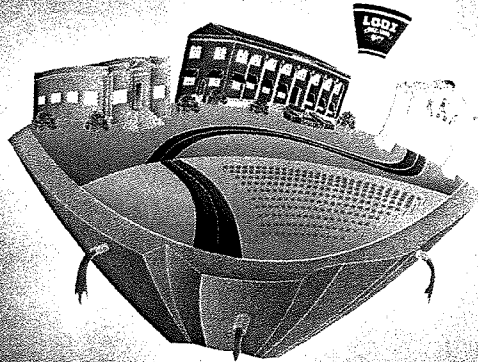
- Field Interns From Residential WMP
- RMC Fully Integrated Into WMP
- RMC Understands City's Expectations
- Efficiencies Result From Continuation with Same Team
- Design Approach Finely Crafted





## Installation Program

1. Mobile Home Parks
2. Condominiums and Apartments
3. Commercial and Industrial
4. Public and Pseudo Public



Questions?